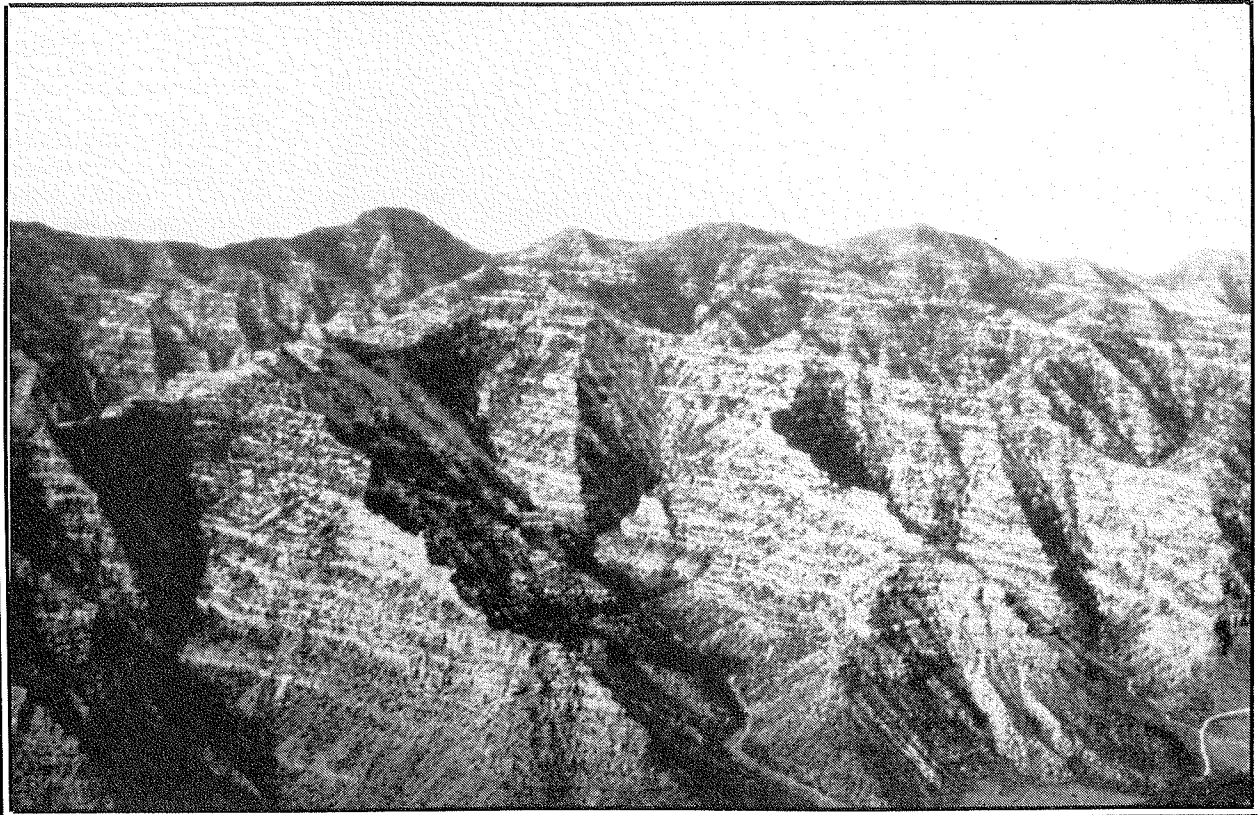


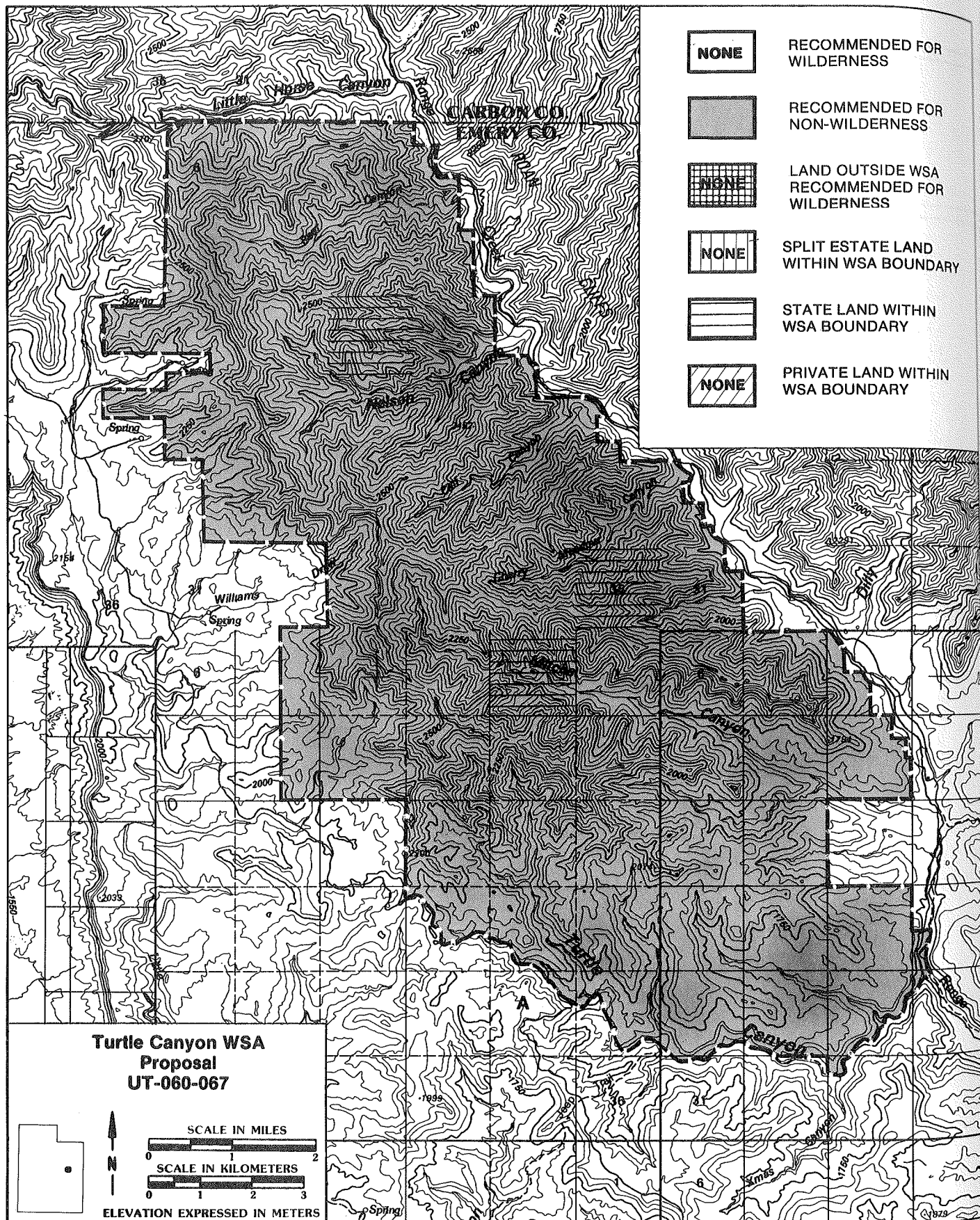
# Turtle Canyon WSA



# TURTLE CANYON WSA

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# **TURTLE CANYON WILDERNESS STUDY AREA**

## **1. THE STUDY AREA: 33,690 acres**

The Turtle Canyon Wilderness Study Area (WSA) (UT-060-067) is in Emery County, about 8 miles southeast of Sunnyside, Utah (population 911) and East Carbon City, Utah (population 1,942). The WSA is about 14 miles long from northwest to southeast and as much as 6 miles wide from east to west. Roads along Range Creek and in Turtle Canyon separate the WSA from the Desolation Canyon WSA (UT-060-068A) to the east and south. The western boundary of the WSA is along legal subdivisions (see Map). The WSA contains 33,690 acres of public land administered by the Bureau of Land Management (BLM). Three State sections (1,929 acres) are inheld within the WSA (see Table 1). The study area is on a divide between the Little Park Plateau above the Book Cliffs to the southwest and Range Creek Canyon to the northeast.

Turtle Canyon forms the southern boundary of the WSA to its confluence with Range Creek. The divide ends on the south in a formidable line of east-west cliffs, cut by canyons 1,000 to 3,000 feet deep.

Flat areas in the southern portion of the WSA are limited to canyon floors, ledges, and narrow ridgetops. South of the cliffs, alternate layers of soft and resistant rocks form a landscape of benches and slopes cut by canyons 100 to 500 feet deep. Elevations in the WSA range from 4,800 feet in Turtle Canyon to 9,342 feet south of Little Horse Canyon. About one-third of the WSA supports pinyon-juniper woodland and nearly one-third of the area contains Douglas fir and mountain shrub. The remainder of the WSA is predominantly rock outcrop and pinyon-juniper and Douglas fir.

**TABLE 1  
LAND STATUS AND ACREAGE SUMMARY IN THE STUDY AREA**

<b>WITHIN THE WSA</b>	<b>ACRES</b>
BLM (surface and subsurface)	33,690
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	1,929
Total	35,619
<b>WITHIN THE RECOMMENDED WILDERNESS BOUNDARY</b>	
BLM (within the WSA)	0
BLM (outside the WSA)	0
Split-Estate (within the WSA)	0
Split-Estate (outside the WSA)	0
Total BLM land recommended for wilderness	0
In-holdings (State, private)	0
<b>WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS</b>	
BLM	33,690
Split-Estate	0
Total BLM land not recommended for wilderness	33,690
In-holdings (State, Private)	1,929

Source: BLM File Data

## TURTLE CANYON WILDERNESS STUDY AREA

The WSA was studied under Section 603 of the Federal Land Policy and Management Act (FLPMA) and was included in the Utah BLM Statewide Wilderness Environmental Impact Statement (EIS) finalized in November 1990. Three alternatives were analyzed in the EIS: a no action (no wilderness) alternative, a partial wilderness alternative where 27,960 acres would be designated as wilderness and 5,730 acres would be released for uses other than wilderness, and an all wilderness alternative.

The proposed action in the Utah BLM Final Wilderness EIS was the partial wilderness designation. The recommendation in this report is the no action (no wilderness) alternative. A full analysis of the no action (no wilderness) alternative is provided in the Statewide Wilderness EIS.

### 2. RECOMMENDATION AND RATIONALE:

0 acres  
(recommended for wilderness)  
33,690 acres  
(not recommended for wilderness)

The recommendation for this WSA is to release the entire 33,690 acres for uses other than wilderness. Designation of the entire area is considered to be the environmentally preferable alternative as it would result in the least change from the natural environment over the long term. The alternative selected, however, would be implemented in a manner which would utilize all practical means to avoid or minimize adverse environmental impacts.

All of the WSA is in a natural condition and has outstanding opportunities for solitude and primitive recreation. The terrain is diverse and the variety of wildlife and vegetation and the scenic and archaeological values are exceptional. The WSA includes the rugged divide between Little Park and Range Creek and five major drainages with steep V-shaped canyons. The area is not recommended for wilderness designation.

Mineable coal reserves exist along the eastern margin of the area. There are 310 acres under lease. BLM projects that existing coal leases in the WSA will expire and not be renewed. However, new leases will be issued in the future, and

about 27 million tons of mineable coal will be extracted from the WSA. Oil and gas exploration and production are also expected in the foreseeable future.

### 3. CRITERIA CONSIDERED IN DEVELOPING THE WILDERNESS RECOMMENDATION

#### Wilderness Characteristics

##### A. Naturalness

Naturalness is defined as an attribute in which the evidence of man is substantially unnoticeable to the average visitor and where minor imprints of man exhibit no cumulative impact that is substantially noticeable. The entire WSA meets the naturalness criterion. Of this, 75 percent of the WSA (25,270 acres) consists primarily of relict plant communities not significantly influenced by human activities. Slopes exceeding 50 percent in this area remain in this condition. No substantially noticeable imprints or concentrations of imprints occur, but some minor imprints exist. Those within the WSA at the time of the wilderness inventory in 1980 include vehicle tracks that enter the WSA for about 0.5 mile along the bottoms of Cherry Meadow, Calf, and Nelson Canyons adjacent to Range Creek; two old abandoned jeep trails from previous seismic exploration in the extreme southeastern portion of the WSA, that are about 1 mile and 6.5 miles long. The longer trail does not have public vehicle access. Areas along these vehicle trails cover total about 30 acres and are not substantially noticeable in the area as a whole.

Since establishment of the WSA, a number of activities have occurred. Although some surface disturbance occurred, naturalness has not been impaired. Activities that have taken place are as follows:

1. Seismic exploration in a portion of the WSA in June 1981. All work was done with portable equipment and was completed with a helicopter. A reconnaissance of the area indicated that no surface disturbance occurred.

2. A programmatic environmental analysis encompassing several WSAs was completed and approved on August 19, 1983, to

## TURTLE CANYON WILDERNESS STUDY AREA

allow for commercial horseback trips into the Turtle Canyon WSA, as well as other WSAs. No impairment to naturalness has occurred from commercial horseback trips.

3. A seismic exploration was completed in a portion of the WSA in September 1983. Natural revegetation of the action resulted in the area meeting nonimpairment standards by December 1988.

4. A total of 96 elk were released within portions of the Turtle Canyon and Desolation Canyon WSAs in January 1988. Naturalness has not been impaired by the transplant.

### B. Solitude

The size and configuration of the WSA, in combination with topography, provide outstanding opportunities for solitude throughout the area. Most drainages are narrow, twisting, and steep throughout most of their lengths and are separated by broken, irregular ridgelines. The eastern portion of Mitchs Canyon is the most open canyon bottom area in the WSA. Even in this area, the canyon bends and turns and rises in a stair-step fashion, vertically separating one canyon segment from another. The terrain south and southwest of Mitchs Canyon is less rugged. Terrain varies from north to south, alternating between terraced benches and talus slopes to shallow, vertical-walled canyons.

Throughout the WSA, vegetation complements terrain, improving the opportunities for solitude. In more than 75 percent (25,267 acres) of the WSA, trees or large mountain shrub dominate. The remainder of the WSA is rock outcrop, grass, and sagebrush riparian types that include some large trees. Tree cover is moderate to heavy in the pinyon-juniper woodland, Douglas fir, and pinyon-juniper woodland/Douglas fir types. Often the canopy is closed. Cover in the mountain shrub type is dense and, in addition to large shrubs such as mountain mahogany, includes most of the tree species found elsewhere in the WSA.

No significant off-site influences affect opportunities for solitude.

The combination of size, configuration of the WSA, terrain, and vegetation is such that in much of the WSA open vistas, rather than secluded spots, must be sought. Vistas are found along the ridgetop, particularly along the principal ridge and in the southern portion of the WSA.

### C. Primitive and Unconfined Recreation

Overall, the entire WSA is considered to have outstanding opportunities for primitive and unconfined recreation. Those outstanding primitive recreation values for which the WSA is best suited include hiking, climbing, hunting, camping, and sightseeing activities related to the WSA's scenic, cultural, geologic, and wildlife features.

Opportunities for fishing in Range Creek adjacent to the WSA are good to outstanding, although opportunities within the WSA are only fair. Horseback activities could occur in the WSA but potentially suitable routes or trails would be limited due to topography. Horseback trips for short distances in the canyon bottoms, along Range Creek, or in Mitchs and Turtle Canyons are possibilities.

### D. Special Features

Approximately 75 percent of the WSA is rated as outstanding for scenic quality. The historical setting is similar to that of Desolation Canyon WSA. The archaeological potential for significant Fremont artifacts has been documented. The differences in terrain, vegetation productivity, variety in wildlife, and wildlife habitat represented in the WSA are highly unusual and are seldom found in an area of the size of the WSA. The WSA has small populations of cougar, elk, Rocky Mountain bighorn sheep, and black bear, which are wildlife species associated with wilderness. Peregrine falcons and bald eagles, listed as endangered species, may frequent the WSA. Six other animal species and three plant species that are considered special status may occur within the WSA. Refer to Appendix 4 and the Affected Environment, Vegetation and Wildlife Including Special Status Species sections of the Utah BLM Statewide Wilderness Final EIS.

# **TURTLE CANYON WILDERNESS STUDY AREA**

## Diversity in the National Wilderness Preservation System (NWPS)

### A. Expanding the Diversity of Natural Systems and Features as Represented by Ecosystems

Wilderness designation of this WSA would not add a potential natural vegetation (PNV) ecosystem not presently represented in the NWPS.

PNV is the vegetative type that would eventually become climax vegetation if not altered by human interference, and is not necessarily the vegetation that is currently present in an area. The WSA is in the Colorado Plateau Province/Ecoregion.

The PNV in the WSA is entirely juniper-pinyon woodland (33,690 acres). The juniper-pinyon woodland PNV type is well-represented in the NWPS nationally and in Utah and in other BLM study areas both in and outside of Utah.

This information is summarized in Table 2 from data compiled in December 1989.

### B. Assessing the Opportunities for Solitude or Primitive Recreation within a Days Driving Time (5 Hours) of Major Population Centers

The WSA is within a 5-hour drive of the Salt Lake City-Ogden, Utah and Provo-Orem, Utah standard metropolitan statistical areas. Table 3 summarizes the number and acreage of designated wilderness and other BLM study areas within a 5-hour drive of these population centers.

### C. Balancing the Geographic Distribution of Wilderness Areas

The Turtle Canyon WSA could contribute significantly to balancing the geographic distribution of wilderness areas within the NWPS.

As of January 1987, the NWPS included 44 areas comprising 3,443,330 acres in Utah and Colorado, the adjacent state nearest the WSA. A Turtle Canyon Wilderness would supplement the NWPS in the Uinta Basin Section of the Colorado Plateau where there are no established wilderness areas.

**TABLE 2  
ECOSYSTEM REPRESENTATION**

	NWPS AREAS		OTHER BLM STUDIES	
	AREAS	ACRES	AREAS	ACRES
<b>BAILEY-KUCHLER CLASSIFICATION (PNV)</b>				
<b>NATIONWIDE (COLORADO PLATEAU PROVINCE)</b>				
Juniper-Pinyon Woodland	11	1,401,745	84	2,110,315
<b>UTAH (COLORADO PLATEAU PROVINCE)</b>				
Juniper-Pinyon Woodland	1	26,000	53	1,672,508

Source: BLM File Data.

**TABLE 3  
WILDERNESS OPPORTUNITIES FOR RESIDENTS OF MAJOR POPULATION CENTERS**

POPULATION CENTERS	NWPS AREAS		OTHER BLM STUDIES	
	AREAS	ACRES	AREAS	ACRES
Salt Lake City-Ogden, Utah	11	1,099,962	78	2,225,985
Provo-Orem, Utah	11	721,793	90	2,753,178

Source: BLM File Data.

## TURTLE CANYON WILDERNESS STUDY AREA

There are five designated wilderness areas within 100 miles of the WSA. To the northwest are the 8,922-acre Lone Peak Wilderness (U.S. Forest Service [FS]), the 10,750-acre Mt. Timpanogas Wilderness (FS), and the 28,000-acre Mt. Nebo Wilderness (FS); to the north-northwest is the 456,705-acre High Uintas Wilderness (FS), and to the south is the 45,000-acre Dark Canyon Wilderness (FS).

Manageability (The area must be capable of being effectively managed to preserve its wilderness character.)

The WSA can be managed for wilderness to preserve values now present in the area. Livestock grazing would continue in the WSA but would not significantly detract from wilderness values. There is only one existing post-FLPMA oil and gas lease (1,920 acres) and no mining claims in the WSA. The post-FLPMA lease is subject to stipulations for protection of wilderness values. Development of 310 acres of existing coal leases in this area is not projected because the leases will likely expire before development and will not be renewed if the area is designated wilderness.

Provision of access to and activities on 1,929 acres of State land in-held in the portion of the WSA recommended as wilderness could affect wilderness values and uses in the study area. BLM would be obligated to provide access to State lands and could not administratively control development of those lands. BLM projects up to 10 acres of surface disturbance including up to 3 miles of roads associated with access to in-held State lands. This would not affect the overall manageability of the area.

### Energy and Mineral Resource Values

The U.S. Geological Survey (USGS) and the U.S. Bureau of Mines (USBM) prepared a mineral assessment report for the Turtle Canyon WSA (USGS Bulletin 1753, William B. Cashion, et al., 1990). The report indicates that coal deposits underlie the Turtle Canyon WSA. Identified bituminous coal resources in beds 3.5 feet or more thick and under 2,000 feet or less of overburden are estimated to be 6.3 million short tons in the Turtle Canyon study area. Up to 89 million

short tons of identified and potential coal resource with 3,000 feet or less of overburden are estimated in the WSA. Minor occurrences of uranium have been found in the basal part of the Wasatch Formation in the western part of the WSA. Mineral resource potential is estimated to be high for coal; moderate for oil and gas, low for tar sand and oil shale; low for uranium; low for bentonite, zeolites, geothermal energy, and all other minerals; and unknown for coal bed methane.

### Impacts on Resources

The comparative impact table (Table 4) summarizes the effects on pertinent resources for alternatives considered including designation or nondesignation of the area as wilderness.

### Local Social and Economic Considerations

With BLM's recommended no wilderness designation, present and future economic conditions would not be significantly affected. Employment for oil and gas exploration and development in the WSA would be allowed. Annual local sales related to recreation could contribute up to \$18,040 annually by the year 2020. Livestock grazing would continue to contribute \$3,380 in livestock sales and \$260 in Federal revenues annually. Annual oil and gas and coal leasing fees would continue as would potential for coal royalty payments.

### Summary of WSA-Specific Comments

Public involvement has occurred throughout the wilderness review process. Comments received during the early stages of the EIS preparation were used to develop significant study issues and alternatives for the ultimate management of the WSA.

During formal public review of the Draft EIS, a total of 54 inputs specifically addressing this WSA were received from 427 commenters, including oral statements received at 17 public hearings on the EIS. Each letter or oral testimony was considered to be one input. Duplicate letters or oral statements by the same commenter were not counted as additional input or signature. Each individual was credited with one signa-

## TURTLE CANYON WILDERNESS STUDY AREA

ture or testimony regardless of the number of inputs. In general, 34 commenters supported wilderness designation for part or all of the WSA, while 388 commenters were opposed. Five commenters addressed the relative merits of the EIS but took no formal position on wilderness designation.

Those favoring wilderness commented on the naturalness, special features, and primitive recreation opportunities in the WSA. The majority of those commenting in favor of wilderness were from other states and from urban Utah. Of particular concern was the need to protect wilderness characteristics, wildlife, and wildlife habitat.

Those opposing wilderness were concerned that wilderness would prohibit mineral exploration and development, restrict public access and livestock grazing management and harm the State and local economies. Many felt that wilderness is not compatible with multiple use management and that designation would cause Federal air quality standards for the region to become more stringent. Most of those opposing wilderness designation were from rural Utah.

Two Federal agencies, the U.S. Bureau of Reclamation (USBOR) and the USBM commented on the Draft EIS for this WSA. The USBOR did not take a position on wilderness designation but commented on a past study of a reclamation project located in the WSA, stating that project planning would remain inactive in the foreseeable future. BLM records do not indicate that there is a reclamation withdrawal actually inside the Turtle Canyon WSA. The USBM also took no position on wilderness designation but requested that the BLM utilize the findings of the USGS and USBM mineral surveys in the Final EIS. Those findings are incorporated into the Final EIS and study report.

No comment letters were received on the Final EIS.

There are three state sections (1,929 acres) in the WSA. In commenting on the Draft EIS the State of Utah expressed general opposition to wilderness designation. The State commented that Turtle Canyon WSA has high wilderness values

and moderate conflicts compared to other WSAs in the region. Concern was expressed that oil and gas potential and coal development conflicts were not sufficiently reduced in the partial alternative. Other comments expressed concern over a reclamation withdrawal in Gray Canyon.

The Turtle Canyon WSA is in Emery County, Utah. The Zoning Resolution of Emery County classified the WSA as potential future mining and grazing land. The Emery County Commission is opposed to wilderness designation for the WSA and has endorsed the Consolidated Local Government Response to Wilderness that opposes wilderness designation of BLM lands in Utah. In commenting on the Draft EIS, the Commission noted that wilderness designation would be in conflict with the County Master Plan; that the State in-holdings will compromise the manageability of the area; and that wilderness designation would lead to more restrictive air quality and visibility standards that would have a substantial negative effect on the economic future of Emery County.

# TURTLE CANYON WSA

Table 4  
Comparative Summary of Impacts by Alternative

Issue Topic	Alternatives		
	Recommendation No Action/No Wilderness	All Wilderness (33,690 Acres)	Partial Wilderness (27,960 Acres)
Impacts on Wilderness Values	<p>Wilderness values would not be protected by wilderness designation and loss would occur as intrusions increase. In the foreseeable future, naturalness and opportunities for solitude and primitive recreation would be directly lost on 330 acres because of oil, gas, and coal exploration and development and for construction of access to in-held State lands. Opportunities for solitude and primitive recreation would be indirectly reduced in quality on up to 5,053 acres. Some Class A scenery would be reduced in quality in disturbed and surrounding areas, and some wilderness dependent wildlife would leave the areas of direct and indirect disturbance during the period of activity. Special status plant species would not be significantly affected because only 1 percent of the WSA would be disturbed and mitigation would be required. Vehicular use of 8 miles of ways and about 20 miles of new roads would occasionally detract from the quality of opportunities for solitude and primitive recreation in the WSA.</p>	<p>Wilderness designation would preserve overall the wilderness values in the WSA. In the foreseeable future, naturalness and opportunities for solitude and primitive recreation would be directly lost on 10 acres because of construction of access roads to in-held State lands. Opportunities for solitude and primitive recreation would be indirectly reduced in quality 674 acres. Although Class A scenery would be reduced in quality on the disturbed and surrounding areas.</p>	<p>Wilderness values would be preserved in the designated area which is approximately 83 percent of the WSA. Naturalness and opportunities for solitude and primitive recreation would be directly lost on 70 acres of the WSA because of oil and gas exploration and development and construction of access roads to in-held State lands. Opportunities for solitude and primitive recreation would be indirectly reduced in quality on up to 1,684 acres. Most of the impact would be in the nondesignated area. Class A scenery would be reduced in quality in the disturbed and surrounding areas and wilderness-dependent wildlife would leave areas of direct and indirect disturbance during the period of activity. Special status plant species would not be significantly affected because only 0.2 percent (70 acres) of the WSA would be disturbed and mitigation would be required. Vehicular use on 7.5 miles of ways and 13 miles of new access roads would occasionally detract from the quality of opportunities for solitude and primitive recreation in the WSA.</p>

# TURTLE CANYON WSA

Table 4 (Continued)  
Comparative Summary of Impacts by Alternative

Issue Topic	Alternatives		
	Recommendation No Action/No Wilderness	All Wilderness (33,690 Acres)	Partial Wilderness (27,960 Acres)
Impacts on Mineral and Energy Exploration and Production	Implementation of this alternative would not adversely affect mineral exploration or production because mineral leasing, location of mining claims, and mineral development would not be restricted for protection of wilderness values.	Opportunity to recover about 27 million tons of coal and an estimated 10 to 50 million barrels of oil and 60 to 300 billion cubic-feet of natural gas would be foregone. There would not be a significant loss of production of locatable and salable minerals because the probability of development is low even if the area is not designated wilderness.	Oil and gas leasing would not be allowed on 83 percent of the WSA and existing leases would expire before production. Therefore, an unknown but locally significant amount of oil and gas production would be foregone. The highest potential for oil and gas is expected to be within the southern (nondesignated) portion and eastern areas of the WSA. Recovery of about 27 million tons of coal would be foregone. Loss of exploration and development opportunities for other minerals would not be significant because the probability of development is low even if the area is not designated wilderness.
	About 1 percent (330 acres) of the wildlife habitat in the WSA would be disturbed by oil, gas, and coal exploration and development. This would reduce the carrying capacity of the area for big game species and also reduce potential nesting habitat for the peregrine falcon. However, these species still have the potential to increase over present numbers. Although the acreage of disturbance is minimal, the habitat impacted by increased human activity in the area could be much greater due to the 20 miles of access roads that may be needed in mineral exploration and development.	Wildlife species would be protected and provided with additional solitude. Populations of some species, especially game species, would increase. Threatened, endangered, and other special status species would be protected.	About 0.2 percent of the habitat in the WSA would be disturbed. Impacts to wildlife species with this alternative would be very similar to those of the All Wilderness Alternative because of the small amount of disturbance.

# TURTLE CANYON WSA

Table 4 (Continued)  
Comparative Summary of Impacts by Alternative

Issue Topic	Alternatives		
	Recommendation No Action/No Wilderness	All Wilderness (33,690 Acres)	Partial Wilderness (27,960 Acres)
Impacts on Economic Conditions	<p>Present economic conditions would not be affected. Employment in coal, oil, and gas exploration and development in the WSA would represent about 1.7 percent (340 jobs) of the projected combined Carbon and Emery County employment by the year 2010. There would be minor changes in local economic conditions. The WSA could contribute up to \$18,040 annually in local sales related to recreation. Livestock grazing in the WSA would continue to contribute \$3,380 in livestock sales and \$260 in Federal grazing revenues each year. Oil and gas and coal leasing fees could contribute up to \$74,460 annually in Federal and State revenues. In addition, coal royalties from the WSA would contribute about \$4,000,000 per year for about 14 years while gas royalties could bring between \$20,000 and \$100,000 per year per well.</p>	<p>Present economic conditions would not be affected. The potential for 340 jobs, 1.7 percent of the projected combined Carbon and Emery County employment in the year 2010 would be foregone. Annual local recreation-related sales could contribute up to \$18,040 annually to the local economy by the year 2020. Livestock grazing would continue to contribute \$3,380 in livestock sales and \$260 in Federal revenues annually. Annual oil, gas, and coal leasing fees of up to \$74,460 would be foregone as would coal royalty payments of about \$4,000,000 annually for 14 years and oil and gas royalties of between \$20,000 and \$100,000 per well per year.</p>	<p>Present economic conditions would not be affected. Employment for oil and gas exploration and development in the WSA would be about 0.1 percent (20 jobs) of the combined projected Carbon and Emery County employment by the year 2010. Because coal and an unknown portion of the potential oil and gas in the WSA would not be developed, up to 320 fewer jobs would be provided than with the No Action/No Wilderness Alternative. Annual local sales related to recreation could contribute up to \$18,040 annually by the year 2020. Livestock grazing would continue to contribute \$3,380 in livestock sales and \$260 in Federal revenues annually. Annual oil and gas and coal leasing fees of up to \$62,900 would be foregone as would coal royalty payments of up to \$4,000,000 annually for 14 years and oil and gas royalties of between \$20,000 and \$100,000 per well per year. The loss of oil and gas rental fees would be less than with the All Wilderness Alternative because 17 percent of the WSA, including the area with the highest potential for oil and gas, would not be designated wilderness.</p>